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*Is the Fact the Olympic Games Run Late or Over Budget a Project Management Failure?*
Featured Paper
by Laurianne Vaity

# Is the Fact the Olympic Games Run Late or Over Budget a Project Management Failure?[1, 2]

## Laurianne Vaity

## Abstract

Megaprojects are very common today, and the Olympic Games are amongst the most well-known of them. Appreciated by a very large and cosmopolite public, they take place every four years in a host country chosen by the International Olympic Committee.

However, the organization of such an event is far from being easy in term of Project Management. Indeed, it always suffers from cost overruns and delays.

To identify and understand what lead to such problems, and then finding what could be the best solution, several tools such as root cause analysis, and qualitative and quantitative methods will be used. The results coming from these studies will help us to understand why the IOC should implement some change such as the modifying of existing infrastructures by the host country instead of their construction.

**Keywords:** unrealistic schedule, megaproject, over budget, failure, delay

## Introduction

It is official: for the second time of its history, Tokyo, Japan's capital will welcome the Olympic Games of August 2020[3]. Every four years, this major event considered as the biggest rendezvous for sports lovers generally gathers hundreds of athletes and several thousands of tourists from all around the world. Strongly broadcasted, millions of people will be able to follow the competition daily and support their favorite athletes without even moving from their houses, and from their countries. Of course, the enthusiasm caused by the tumult of the Olympic Games will offer a magnificent advertising to the greeting country.

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[1] Editor's note: This paper was prepared for the course "International Contract Management" facilitated by Dr Paul D. Giammalvo of PT Mitratata Citragraha, Jakarta, Indonesia as an Adjunct Professor under contract to SKEMA Business School for the program Master of Science in Project and Programme Management and Business Development. http://www.skema.edu/programmes/masters-of-science. For more information on this global program (Lille and Paris in France; Belo Horizonte in Brazil), contact Dr Paul Gardiner, Global Programme Director, at paul.gardiner@skema.edu.

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[3] Olympic.org, (2013, September 07), *IOC Select Tokyo as Host of 2020 Summer Olympic Games.*

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However, if this is an extraordinary opportunity for the Land of the Rising Sun to be in the spotlight, a hidden and big part of the iceberg needs to be more deeply analyzed. Indeed, the Olympic Games have very often been controversial because of its social fallouts: the destruction of houses to make the space free for the Olympic facilities in Brazil, massive deaths of stray dogs in Russia… the list is quite long and scary. And from an economical and project management point of view, the Olympic Games have always been a disaster as far as they have been created and as far as they have existed.

On the one hand, there are the Olympic swimming-pools, stadiums and velodromes, etc. - all sports infrastructures in other words - that have to be built for the continuity of the competition. On the other hand, there is the Olympic Village for the accommodation of the athletes, without forgetting the huge public infrastructures such as the construction of new bridges, railway lines, and the power station that will have to be thought to facilitate the transportation of the people present in the country for the occasion. This is obvious that these facilities are not heaven-sent and represent several thousand million euros for the organizing country.

The Olympic Games represent one of the biggest projects realized, from a project management perspective and it is what is called a megaproject, that is to say *"… large-scale, complex ventures that typically cost a billion dollars or more, take many years to develop and build, involving multiple public and private stakeholders, are transformational, and impact millions of people. »*[4].

In term of project management, the Olympic Games are considered to be a programme if we consider the following definition: "*a programme is a **portfolio of projects** selected and **planned in a coordinated way so as to achieve a set of defined <u>objectives</u>, giving <u>effect</u> to various (and often overlapping) initiatives and/or implementing a <u>strategy</u>*"[5]. Simultaneously, the Olympic Games are related to project management as the vocabulary that follows and steps are applied during the creation of the event. During the **initiating and planning phases**, the IOC (International Olympic Committee) defines **a project manager** (which is the hosting country in our case) and becomes **the sponsor** of the latter. Then, in **the executing phase**, both work on how they are going to conduct the project efficiently. In **the monitoring and controlling phases**, all infrastructures are checked to make sure they are performant and safe. At last, **in the closing phase**, the project of the greeting country **is delivered** to the IOC under the form of the Olympic Games event.

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[4] According to the definition of Bent Flyvbjerg, Professor & Chair at the University of Oxford
[5] Based on Wideman's comparative Glossary

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But what can we say about the cost of the infrastructures needed when the project team fails in its management of the project? What does it lead to? What are actually the root causes running to unfortunate consequences?

In fact, the budgets allocated have never been respected since the Olympic Games' creation and have even been multiplied several times for each organization by the end of the event.

Identifying the causes leading to the failure of the Olympic Games project can be a very interesting manner to resolve the roots of the problem and avoid delays and cost overruns. Let's examine these causes and attempt to bring a satisfying answer to the problem.

The following fishbone diagram presents the possible causes to the failure of the Olympic Games projects:
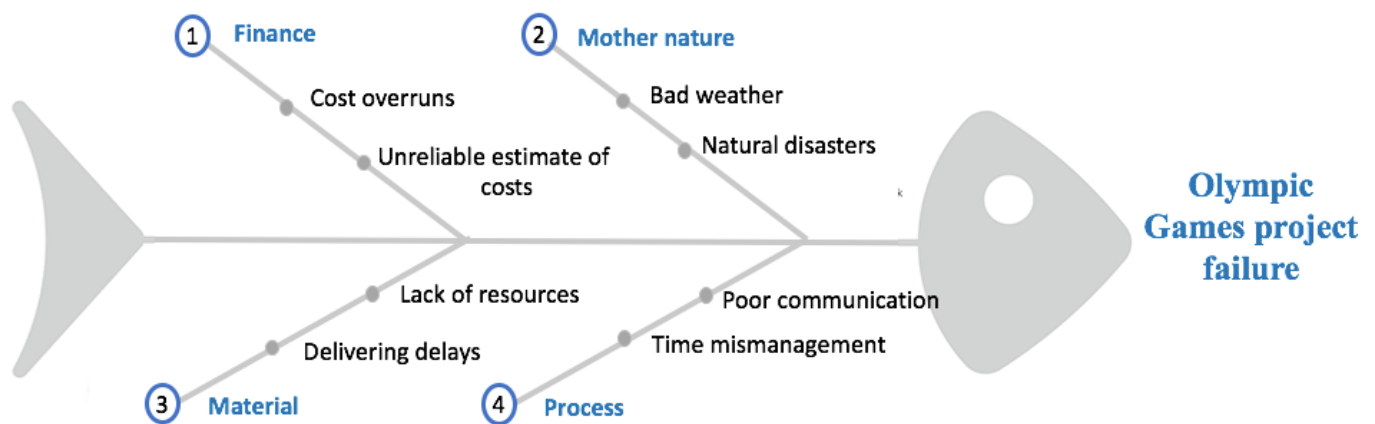


**Possible causes leading to the failure of the Olympic Games[6]**

This will bring us to the resolution of our problem which is: **What are the causes leading to the recurrent failures of the Olympic Games projects?**

## Methodology

### Step 1 – Problem identification

As stated previously, the Olympic Games projects have been suffering from the same problems for ages. In order to tackle it, it may be interesting to list **the ones in link with project management** and thus find the appropriate solution to make the event successful.

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- Cost overruns

Naturally, the greeting country has no choice but to spend very big expenses to host the event. Nevertheless, the initial budget is never respected and the organizing country suffers from huge cost overruns at the end of the project. It has always been the case but the most striking example has been those of Russia with the Winter Olympic Games of Sochi in 2014: the cost overrun represented more than 20 billion dollars, that is to say, a cost overrun of 289%. The biggest ever realized since the creation of the event.

- Delays – caused by time mismanagement

It may be because of the weather but no matter the cause, the Olympic Games have always been suffering from delays. This year, the organizers of the event are no exception to the rule. Indeed, the actual preparation of the facilities of the Olympic Games in Tokyo already undergoes some delays. The venues both for the rowing and canoeing events are two months behind schedule. Planned for March, their construction has been pushed back for May[7].

These are the main two problems that we identified. Below, we will list their alternative solutions.

*Step 2 – Feasible alternative solution to the problem statement*

To put an end to the delays and cost overruns of the Olympic Games, the study of several articles came to the conclusion that the following alternatives may avoid the previous problems. The megaproject needs to undergo some reforms which could potentially be:

1. The first one would be to avoid the construction of new infrastructures by improving the existing ones

2. The second would be to forbid the participation of emerging country as hosting country to limit the financial fallouts and

3. Declare a single and permanent host country

4. The third but not least one would be to implement environmental sustainability in the construction of the facilities needed for the Olympic Games

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[7] Tarrant, J. (2018, July 24), Olympics – *Tokyo Games venues hit by construction delays: organizers.*

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### Step 3 – Development and outcomes for each alternative

The first alternative as stated previously would be **to avoid the construction of new infrastructures** specially dedicated to the event. Cities chosen to host the Olympic games have first to invest several million euros to evaluate the budget needed, prepare and submit it to the IOC (International Olympic Committee). Once it is accepted, the project team has to be hired and everything has to be built for several years, which represent then billion euros. But at the end of the event, all the infrastructures are left abandoned, and if it used, it does not make profit enough to reimburse the initial costs. As a consequence, the solution may be to improve, modify and upgrade the existing venues as L.A Summer Olympics Committee decided in 1984.

Another double alternative – that may be viewed as controversial - would be **to ban the application of emerging countries as host for the Olympics Games** by the IOC. Economists such as Baumann and Matheson argue that it represents a real financial burden for these countries and in this way to "award the games to rich countries that are better able to absorb most of the costs". Simultaneously, another economist Andrew Zimbalist proposed another radical solution which is **to declare a single city permanent host for the Olympic Games** in order to avoid new investment and encourage the reusing of the existing facilities.

The third solution consists of **using environmental sustainability while building the infrastructures**. How? Simply by using renewable energies for example. That may reduce the damages caused by the environment and considerably save energy costs and thus decrease costs overruns. This is what the IOC preconized in 2014 for the 2020 Games.

### Step 4 – Selection of the criteria to accept or reject the alternative solutions

To analyze our three alternative solution – chosen above - and to be able to define which one is the most satisfying to solve our problem, an MADM (Multi-Attribute Decision Making) is needed in order to reject any poor alternative.

The criteria which seem the most relevant to show how effective each alternative are, are the following:

- **The cost savings obtained thanks to the chosen alternative**: as cost overruns are one of our two main problems, the solution that will be accepted must allow cost savings

- **Time-saving obtained thanks to the chosen alternative**: stated as the second main problems faced by the Organization of Olympic Games, the solution has to avoid any delays in the project and avoid it to be behind schedule

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- **The communication management of the chosen alternative:** is it easy for the project team to communicate within the project? Does it require to share complex information according to the alternative chosen?

| Attributes | Avoid the construction of new infrastructures and modify existing ones | Ban the application of developing countries | Declare a single and permanent host city | Use of environmental sustainability |
|---|---|---|---|---|
| Cost savings | Better | Better | Better | Worse |
| Time savings | Better | Worse | Better | Worse |
| Communication management | Equal | Worse | Worse | Equal |
| Resources | Better | Worse | Better | Better |

- **The resources management of the chosen alternative:** it should allow to reduce the risks of delay for the delivery of the resources needed, avoid to buy new and waste materials and as a consequence be respectful of the environment

We get the following table to support our decision-making:

**Qualitative analysis – Multi-Attribute Decision Making table [8]**

The table is filled in with a color code, as follow:

- A green score indicates that attribute has the best impact on the Olympic Games organization

- A yellow score indicates that the attribute has a positive impact on the Olympic Games organizations but implies some changes

- A red score indicates that the attribute is the worst one among the others in term of a chosen alternative answering our problems, that is to say, delays and cost overruns

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Considering our table, the second alternative "**Ban the application of developing countries**" in our will to reduce cost overruns and delays **can already be eliminated with a total 3 of red scores**.

## Findings

### *Step 5 – Development and outcomes for each alternative*

We started our analysis by identifying the causes that lead to delays and cost overruns in the Olympic Games projects and identified several solutions. A qualitative analysis determined that the last alternative was the one to be eliminated at first. To confirm it, let's do **a quantitative analysis** that will help us to define the best solution to answer our problem.

In order to realize our quantitative analysis, we need to keep and assign a colour code to each of our previous attributes. **A relative weighted technique** will help us to perform it.

The table below shows the score corresponding to each attribute:

| Attribute | Score |
|-----------|-------|
| Better    | 1     |
| Equal     | 0,5   |
| Worse     | 0     |

The table below shows the score of each alternative with respect to its attributes and also its total:

| Attributes | Avoid the construction of new infrastructures and modify existing ones | Ban the application of developing countries | Declare a single and permanent host city | Use of environmental sustainability |
|-----------|-----------|-----------|-----------|-----------|
| Cost savings | 1 | 1 | 1 | 0 |
| Time savings | 1 | 0 | 1 | 0 |
| Communication management | 0,5 | 0 | 0 | 0,5 |
| Resources | 1 | 0 | 1 | 1 |
| TOTAL | 3,5 | 1 | 3 | 1,5 |

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### Quantitative analysis [9]

From the previous quantitative analysis, and as the qualitative analysis first showed, we can definitely delete the last alternative **"Ban the application of developing countries"** but also the last alternative **"Use of environmental sustainability".** To determine the best alternative among the two last ones, and their efficiency to put an end our problem, an additive weighting model is needed.

We get the following table:

| Attributes | Step 1 | Step 2 | | | Alternative 1 | | Alternative 2 | |
|---|---|---|---|---|---|---|---|---|
| | Relative rank | Normalized weighted (A) | | | (B) | (A) x (B) | (C) | (A) x (C) |
| Cost saving | 1 | 1/10 | = | 0,10 | 1 | 0,1 | 1 | 0,1 |
| Time saving | 2 | 2/10 | = | 0,20 | 1 | 0,2 | 1 | 0,2 |
| Communication management | 4 | 4/10 | = | 0,40 | 0,5 | 0,2 | 0 | 0 |
| Resources | 3 | 3/10 | = | 0,30 | 1 | 0,3 | 1 | 0,3 |
| SUM | 10 | | SUM | 1,00 | SUM | 0,8 | SUM | 0,6 |

### Additive weighting model[10]

*Step 6 – Selection of the preferred alternative*

Thanks to the previous table, the first alternative is better than the second alternative. However, to make sure this is the best one, we can now use **a ratio scale** in order to demonstrate our result.

3,5/3 = 1,17 * 100 = 117%

As a consequence, the first alternative is 117% better than the second one. We can deduce that the best alternative we have is **"Avoid the construction of new infrastructures and modify existing ones".**

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[9] By Author
[10] By Author

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| Rank order | Alternatives |
|:---:|---|
| 1 | Avoid the construction of new infrastructures and modify existing ones |
| 2 | Declare a single and permanent host city |
| 2 | Use of environmental sustainability |
| 2 | Ban the application of developing countries[11] |

*Step 7 – Performance monitoring and post evaluations of results*

We previously came to the conclusion that avoiding the construction of new infrastructures and modifying the existing ones may considerably give a helping end to stop delays and cost overruns for Olympic Games management failure.

In order to track the performance of that solution, different strategies exist:

- Comparison of the former budgets allocated for the last Olympic Games with the one that will use our solution
- Comparison of the time management at each step of the project between the last Olympic Games with the one using our solution
- Before-and-After Pareto Analysis: this will highlight the impact of the solution we chose to implement and its positive effect. If the impact is positive, both cost overruns and delays should decrease considerably or even disappear at the end of the project.

## Conclusion

Nowadays, the Olympic Games represents a long-awaited event, broadcast all around the world and followed by a large public. Its organization requires very large investments and time coming from the host country. However, despite its popularity, it has been suffering bad management of the project for several decades. But why? **What are the recurrent causes leading to the failure of the Olympic Games projects?**

First, thanks to a root cause analysis, we identified two main causes linked to project management that lead to the recurrent failures of the event: **cost overruns and delays**. As a consequence, our research was focused on the alternatives that may be applied and that would allow putting an end to the previous problems.

The alternatives that we identified were the following: **to avoid the construction of new infrastructures and modify the existing ones within the host country, to ban the application**

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**of developing countries, to declare a single and permanent host and to use environmental sustainability in the different steps of the organization of the event.**

Thanks to qualitative and quantitative tables and based on attributes directly coming from our root cause analysis, we have been able to answer our question and determine the most efficient solution: *to avoid the construction of new infrastructures and modify the existing ones within the host country*. Indeed, this alternative doesn't require as large investments as it would have been the case if the construction of new infrastructures was needed. In term of time allocation, modifying the existing infrastructures would also reduce considerably the time needed if they had to be entirely constructed, from the architecture to the effective construction. As a consequence, it improves how the project is managed and reduces the possibilities of failures of such megaprojects.

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**Laurianne Vaity** is a French university student, is 23 years old and comes from Reunion Island – a French Island located in the Indian Ocean next to Mauritius and Madagascar. She was born, grew and studied on this little and welcoming island before leaving for Skema Business School in 2015 after her economic preparatory class.

She has had had the opportunity to spend a semester in Raleigh, North Carolina (USA) during her studies in Skema, in partnership with an American university: NC State University. It was a rich human and professional experience. Then she realized a six-months internship in Project Management, in the field of Telecoms.

At the beginning of year 2018, she chose to study Project Management as a specialization and integrated Skema's Master in Science in Project and Program Management and Business Development. She strongly believes that Project Management is more than a subject, a competence, that is absolutely needed today to make successful projects and have a clear approach of how to deal with schedule and stakeholders within projects in every single topic. Her studies have been really helpful for her to acquire and improve several values/qualities such as humility, team spirit, organization, autonomy and leadership.

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